

Appl. No. 10/007,637  
Amdt. Dated July 9, 2005  
Reply to Office Action of April 13, 2005

### **REMARKS/ARGUMENTS**

Prior to this Amendment, claims 1-24 were pending in the application, with claims 11-20 being withdrawn in response to a restriction requirement. Claims 11-20 are canceled to hasten allowance of the remaining claims.

Claim 1 is amended to stress that the method is performed for a plurality of client devices with a list of service plans being provided in a recommendation report for each of the client devices (i.e., on an individual device basis). Also, claim 1 is amended to include the limitation of claim 2, which is canceled, to stress that call detail records are used and actual call times (rather than the time billed by the service provider) are determined for use in determining average usage for each device and the determined average usage may include usage that was unbilled or dropped by the service provider (such as due to fixed charges, no charge services, etc). No new matter is added with support found in claim 2 and in the specification in the paragraph beginning at line 12 of page 33.

Independent claim 21 is amended to include preparing reports for each device with the requirement of providing varying access levels being moved to dependent claim 22. Further, claim 21 is amended to clarify that the method is useful for determining a set of preferred plans for each device based on analysis parameters that are provided by the client. New claims 25 and 26 depend from claim 21 and are added to protect features of the invention related to analyzing service plans based on minimum cost savings provided by plans and related to the concept that a client can set differing analysis parameters for various sets of their communication devices. No new matter is added with support found in the original claims (such as claim 6 and in the specification in Figure 8 and corresponding text).

New independent claim 27 is similar in its limitations to claim 1 but includes the limitations presented in dependent claims 8 and 9, which are directed to one of the important aspects of the invention, i.e., overcoming the challenge of processing a plurality of formats/forms of usage and billing data for a single client (i.e., clients often use more than one carrier or service provider for their wireless or other communication devices). New claims 28-32 depend from claim 27 and are added

Appl. No. 10/007,637  
Amdt. Dated July 9, 2005  
Reply to Office Action of April 13, 2005

to provide further protection for features of the invention not shown or suggested by the cited references.

After entry of the Amendment, claims 1, 3-10, and 21-32 remain for consideration by the Examiner.

**A. Rejections under 35 U.S.C. §103.**

In the Office Action of April 13, 2005, claims 1, 2, 5-10 and 21-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 6,813,488 ("Marsh") in view of U.S. Pat. No. 6,487,283 ("Thomas") or U.S. Pat. Appl. Publ. No. 2002/0101967 ("Eng") or U.S. Pat. No. 6,330,311 ("Mijares"). This rejection is respectfully traversed based on the following remarks.

As discussed in Applicants' Background and Summary, the present invention is addressing the need of companies and other larger entities to manage their numerous communication devices, such as wireless or cellular devices, and in particular, to better identify desirable service plans for each of their devices. Prior techniques often simply lumped all devices together or obtain an overall average for the company and its users. Other prior techniques were provided by the service providers and generally were delayed and only affected or were related to a subset of the company's devices as many companies use more than one service provider. Hence, there was a need for a more effective method for enabling a company to manage its use of communication devices which may be serviced by a plurality of service providers. The present invention addresses this need and allows a client to see a set of service plan recommendations (switch recommendations) for each client device and these service plans are selected, in some cases, based on client-input or selected analysis parameters. Further, in some embodiments, the invention addresses the problem associated with receiving usage and billing data in a plurality of formats and forms from the various service providers.

Referring specifically to claim 1, this claim is directed to a method that includes accessing billing files to identify a plurality of client devices, with the billing files including "call detail records." The method includes "determining average usage of each of the client communication devices based on the call detail

Appl. No. 10/007,637  
Amdt. Dated July 9, 2005  
Reply to Office Action of April 13, 2005

records...wherein the average use determining includes determining actual call time for the calls made with the client communication devices...and the determined average usage time includes any usage time unbilled by the communication service providers." A plan cost is calculated for a list of service plans for each of the devices based on the determined average usage and a recommendation report including a list of recommended service plans for each of the devices is provided that is arranged based on calculated plan cost. The combination of the cited references fails to teach each element of claim 1, and hence, Applicants request that the rejection be withdrawn.

Specifically, the Office Action cites Marsh for teaching all the limitations of claim 1 except for the arrangement of the recommended service plans based on cost. Applicants disagree with this interpretation of Marsh. As can be seen at least from the claims of Marsh, its figures, and specification (see, for example, the "single subscriber" example beginning at col. 18, line 20), Marsh is directed to comparing the cost of two rate plans for a single subscriber. There is no discussion in Marsh of accessing billing files for a "plurality of client communication devices" and then determining average usage for each of such clients based on call detail records. Hence, Marsh does not support a rejection of claim 1 simply because it does not teach analyzing a plurality billing files for a plurality of devices and then creating a list of service plans for each of the devices, calculating costs for each of the devices, and generating a report that includes for each of the devices a portion of the available service plans.

Further, as amended claim 1 calls for determining average usage for each device by "determining actual call time for the calls" and including "any usage time unbilled by the communication service providers" in the determined average usage. As explained at page 32, line 27 to page 33, line 31 of Applicants' specification, service providers often use summary data and times in billing and may drop usages that are they will not bill to the client due to a particular present service plan. As can be appreciated, the use of call detail records to determine actual times and dropped times allows the method of claim 1 to calculate a more accurate average usage time

Appl. No. 10/007,637  
Amdt. Dated July 9, 2005  
Reply to Office Action of April 13, 2005

for each device and then, this more accurate time can be used to better calculate the true costs of other service plans. These limitations are not shown in Marsh.

The Office Action provides no citation in Marsh of including unbilled usage time as this is a newly added limitation not previously presented in the claims. Further, in rejecting claim 2, the Office Action cites Marsh at col. 17, lines 1-15, but Applicants have reviewed this portion of Marsh and there is no teaching of determining "actual call times" but instead Marsh teaches calculating "a moving average 820" and creating "a calling profile record 820 that contains the average usage." Because there is no teaching or suggest of using actual call times versus the times provided by the service provider for billing, Marsh fails to support a rejection of claim 1 for this additional reason.

Thomas, Eng, and Mijares are cited for teaching that the reporting of recommended service plans can be presented in order of cost. However, none of these references overcome the deficiencies of Marsh discussed above. Hence, the combination of these references with Marsh still fails to teach or suggest each limitation of claim 1 (i.e., fails to teach determining actual call times and including unbilled usage and fails to teach providing recommendations for each device among a plurality of such devices).

Claims 5-10 depend from claim 1 and are believed allowable over Marsh, Thomas, Eng, and Mijares for at least the reasons provided for allowing claim 1. Further, claim 6 calls for applying analysis parameters provided by the client to the service plans in the recommendation report and removing those that do not meet the parameters. The Office Action cites Marsh at cols. 8-10, col. 16, col. 23, and col. 33 for teaching this limitation. Cols. 8-10 discuss the Marsh "optimizer doEval function 250" but there is no mention of inputting subscriber analysis or comparison parameters. Col. 16 discusses Figures 9 and 10 (or the optimizer process 370 and the operation of creating rate plan evaluations 440) but neither process includes subscriber input for making optimization decisions or evaluating the plans. Col. 23 discusses how decision algorithms are used to determine optimal service plans but, again, no mention is made of including subscriber input. Finally, col. 33 also fails to

Appl. No. 10/007,637  
Amdt. Dated July 9, 2005  
Reply to Office Action of April 13, 2005

discuss the use of client-provided analysis parameters in the Marsh techniques.  
Claim 6 is believed allowable for this additional reason.

The Examiner took Official Notice of the limitations presented in claims 8-10. Applicants traverse this use of Official Notice and request that a specific citation be provided for the limitations provided in each of these dependent claims. Further, new independent claim 27 is added to present a method with limitations similar to that of claim 1 with the limitations of dependent claims 8 and 9. Claim 27 calls for the method to include receiving billing and usage data for communication devices from two or more service providers and having at least two data formats. The billing information is processed using a separate parser module for each service provider to create single-format output files. The difficulty of the problem being overcome by Applicants should not be underestimated and is explained in detail in Applicants' specification (for example, see discussion of data loader in first paragraph of the Summary on page 5 and description beginning page 27, line 9).

Independent claim 21 as amended includes similar limitations to that of claim 1, and the reasons for allowing claim 1 are believed applicable to claim 21. Further, the reasons provided for allowing claim 6 over Marsh, Thomas, Eng, and Mijares are also believed to apply to claim 21 as these references fail to teach applying client provided analysis parameters to make a service plan determination or recommendation.

Claims 22-26 depend from claim 21 and are believed allowable as depending from an allowable base claim. Further, claim 22 is amended to include limitations from originally filed claim 21. The Office Action failed to provide a citation in Marsh or the other references for these limitations and hence, a proper case of obviousness has yet to be made for the limitations presented in claim 22. Further, claim 26 calls for the client-provided analysis parameters to include differing analysis rules for a first and second portion of the client devices, thereby allowing a client to better manage their selection of service provider plans (i.e., not forced to accept a one-size-fits-all recommendation).

Appl. No. 10/007,637  
Amdt. Dated July 9, 2005  
Reply to Office Action of April 13, 2005

Additionally, in the Office Action of April 13, 2005, claims 1-6, 8-10, and 21-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 5,027,388 ("Bradshaw") in view of U.S. Pat. No. 6,487,283 ("Thomas") or U.S. Pat. Appl. Publ. No. 2002/0101967 ("Eng") or U.S. Pat. No. 6,330,311 ("Mijares"). This rejection is respectfully traversed based on the following remarks.

Bradshaw is directed to a process for use by a communication service provider in providing its customers with consolidated billing for a plurality of lines and/or cellular users. As summarized in col. 9, lines 29-32, Bradshaw teaches a "billing system" that is useful by a service provider for billing its multi-line customers that can provide estimated costs for other eligible service plans offered by the service provider. In contrast, Applicants' invention is directed to allowing a company to select among service plans offered by two or more service providers by analyzing their call detail records and service plan information from those service providers (which may be presented in a variety of forms and formats).

Referring to claim 1, Bradshaw fails at least to show "determining actual call time for the calls...based on call detail records." The Office Action cites Bradshaw generally in its figures, but Applicants could find no reference to calculating actual call time versus using simple billing times. Further, Bradshaw does not teach including time omitted from billing by the service provider. Thomas, Eng, and Mijares fail to overcome these deficiencies of Bradshaw and are only cited for listing recommendations of service plans based on cost.

Claims 3-6 and 8-10 depend from claim 1 and are believed allowable as depending from an allowable base claim. Further, claim 3 calls for "the average use determining includes determining average call duration and a range of call durations from the call detail records." The Office Action refers generally to Bradshaw's figures but Applicants could not find any teaching of calculating these additional parameters that can be useful in more accurately selecting a service provider plan to suit actual device usage. Claim 6 calls for the use of client-provided analysis parameters, and there is no teaching of this limitation in col. 8 of Bradshaw as indicated by the Office Action. As to claims 8-10, the Examiner again took Official

Appl. No. 10/007,637  
Amdt. Dated July 9, 2005  
Reply to Office Action of April 13, 2005

Notice, and Applicants traverse such use of Official Notice and request that specific citations for these claim limitations be provided or the rejections withdrawn.

Bradshaw is directed to processing billing data by a service provider and hence, there is no issue with receiving and processing multiple service provider data. For these additional reasons, claims 3, 6, and 8-10 are believed allowable over the combination of these references.

Independent claim 21 is believed allowable over Bradshaw and the other references for the reasons for allowing claim 1 and dependent claim 6. Claims 22-26 depend from claim 21 and are believed allowable for the reasons provided for allowing claim 21. Additionally, the limitations presented in claim 22 have not been specifically rejected. Claim 26 calls for differing analysis parameters being provided by a client for differing client devices, and this limitation is not shown by Bradshaw or the other cited references.


**B. Conclusion.**

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

No fee is believed due with this Amendment, but any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

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